

with repositories of digital objects; querying a database of information; applying stored expert knowledge; protocol transformation; providing a directory service identifying other locations which provide services related to the task; making a security determination; providing a "what's new" service to identify newly available information; providing a "clipping" service which extracts information; providing a version control service for managing versions of the Knowbot program; responding to actions of a user by obtaining execution of the task at another location without necessarily indicating to the user that the execution occurred at the other location; providing a method for determining the structure of a Knowbot program (e.g., to determine if a digital object is contained in the Knowbot program and to access the element; creating a derivative work from an existing work; generating a Knowbot program that contains another Knowbot program, or a digital object, or other data; and passing a message from a source Knowbot program to a target Knowbot program at a different location.

The information concerning a task to be done may include interpretable or executable instructions. The Knowbot program may include data in the form of a digital object or a Knowbot program (a Knowbot program may itself be a digital object). The digital object may include protocol transformation information.--

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On page 30, ahead of line 3, insert the following:

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--Knowbot programs and Knowbot service stations within the Knowbot service environment may be designated as "qualified entities," that provide certain assurances on system behavior although such assurances may not be possible for all service stations. Various levels of assurance may also be designated. For a service station, qualification amounts to registering the existence of the service station within the Knowbot service environment. The party applying for such registration would agree not to modify (or otherwise tamper with) the service station except as authorized. The service station could contain mechanisms to determine its own integrity (e.g., if it has been altered or its operation otherwise modified).

Knowbot programs arriving at a qualified service station may be allowed to be handled there without regard for the qualification of the service station which originated the program, provided the cost of execution is acceptable. For executions that are costly, electronic payment may be required to be authorized or included. If digital objects subject to rights (e.g., computer programs) or relating to rights (e.g., contracts or deeds) are requested for access, the Knowbot program may only be allowed to be returned to qualified service stations at a certain level of trust. A test may be made prior to performing the access to determine if the source service station of the program is qualified or not. Or, in a less restrictive scheme, the program may simply be limited in what can be done with the digital object.

For Knowbot programs, qualification may mean simply that a qualified service station was the creator of the program, assigned it a globally unique identifier, and maintains a copy of the Knowbot program along with any associated information. When a Knowbot program is deleted, a status message is returned to the service station that created it. This message may be deferred in delivery if that station is not available. Other mechanisms for notification in the event of long-lived Knowbot programs and relatively short-lived stations involve transfer of responsibility by notification to other stations.--

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On page 45, line 1, ahead of the heading, insert the following:

--A Knowbot program could be used to protect sensitive or confidential information. In this case, the terms and conditions might be based on the identity of the user and his need to know. Knowbot service stations could include third-party value-added service providers that facilitate the transfer of information from information providers to information consumers.--

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